Computation Of Critical Clearing Time For Detailed Machine Models:Impact Of Stressed System Loading

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Summary

Computation of critical clearing time (CCT) is carried out for detailed machine models using the generator, exciter and governor-turbine dynamics, The simulations are carried out at both the base-case system loading and the stressed system loading. For the stressed-case loading, all load buses are uniformly loaded with uniform power factor and CCT is computed. Also a comparison is made with the classical machine model results for both base and stressed system loading conditions. The results are compiled for faults at all buses for two test systems and provide a benchmark for comparison of CCT computed by other methods